# **DOCUMENTATION**

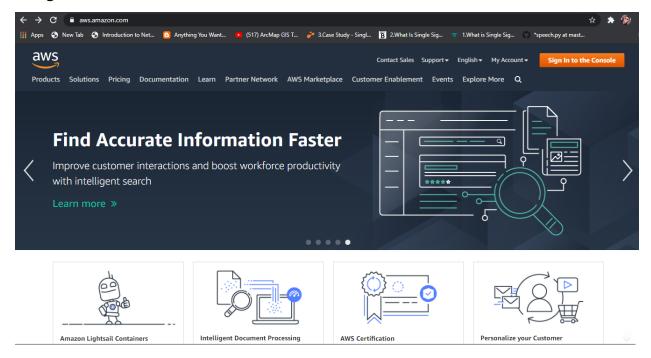
London Stock Exchange Group Sri Lanka - Exchange House



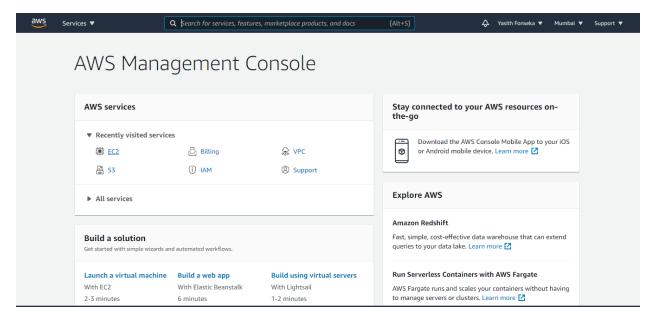
**AYS FONSEKA** 

# PART 01 – Scripting

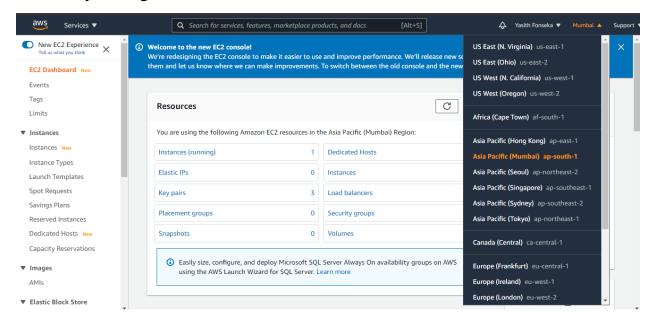
#### 1. Sign into the console.



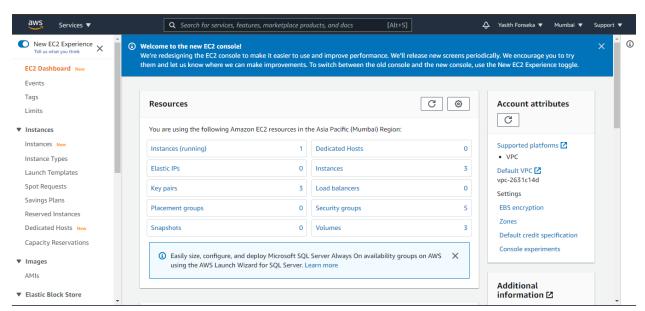
#### 2. Select or search for EC2 instance.



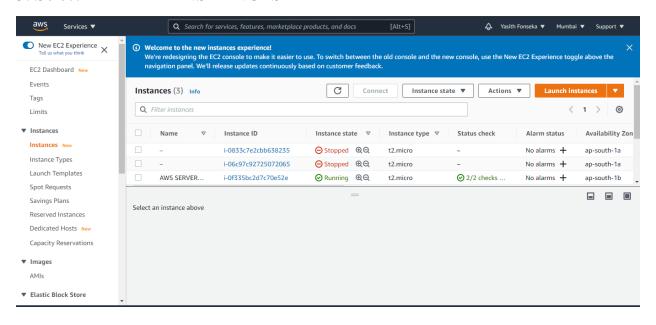
# 3. Select your region



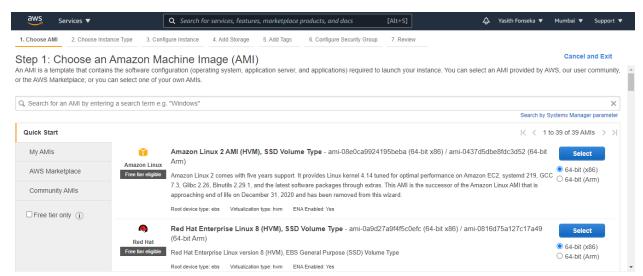
#### 4. Select "Instances" tab



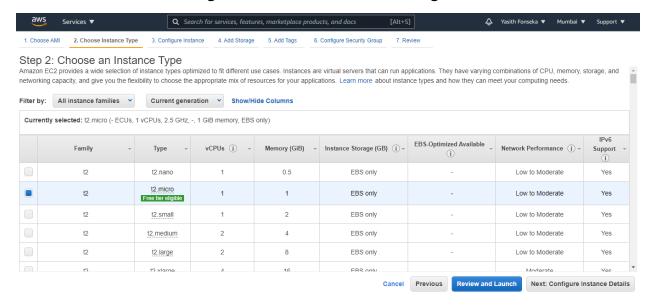
#### 5. Select "LAUNCH INSTANCES"



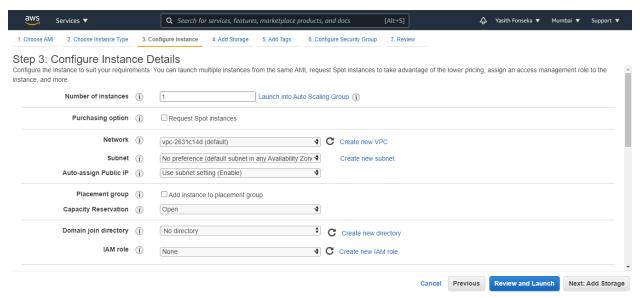
# 6. Choose "Amazon Linux 2 AMI (HVM)"



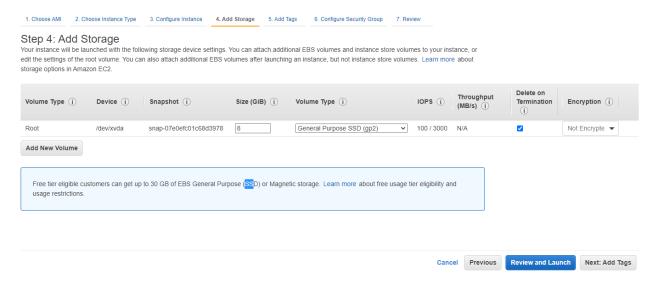
# 7. Selected "Free Tier Eligible" one and clicked "Configure Instance Details".



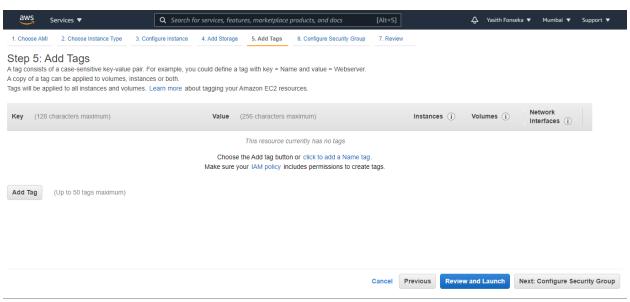
# 8. Kept this as it is and clicked "Add Storge"



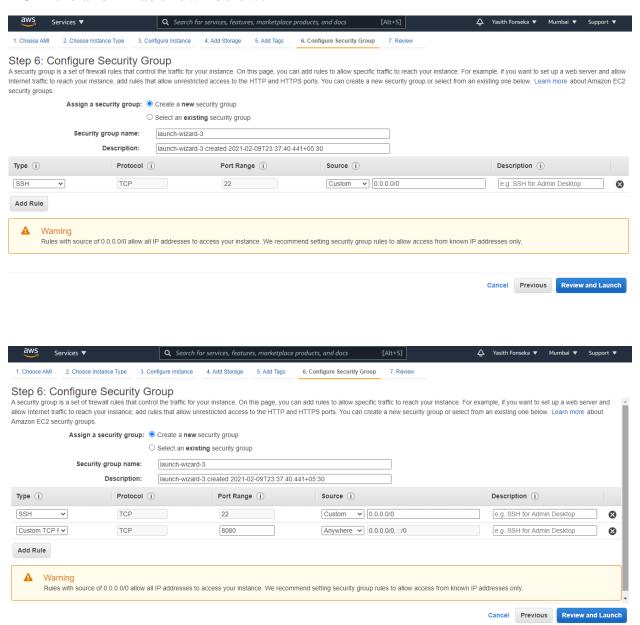
# 9. This one also kept as it is and clicked "Add Tags"



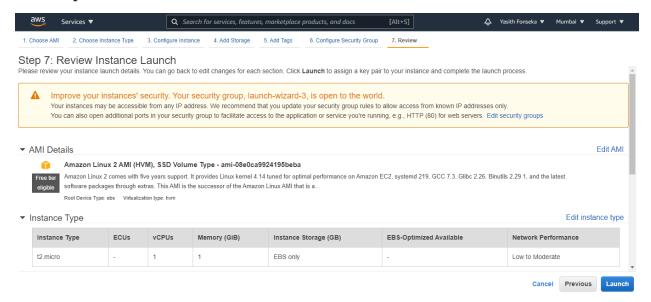
# 10. Kept as it is and clicked "Configure Security Groups"



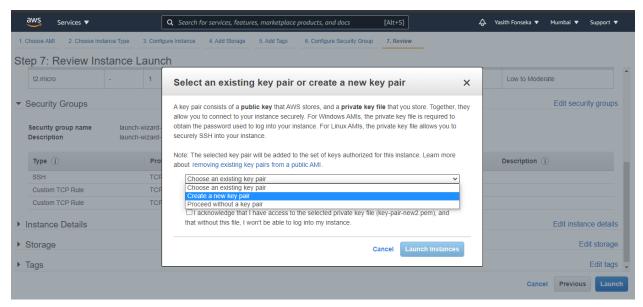
# 11. Here need to add a rule. For that click Add Rule button and select "Custom TCP rule and fill as shown below.



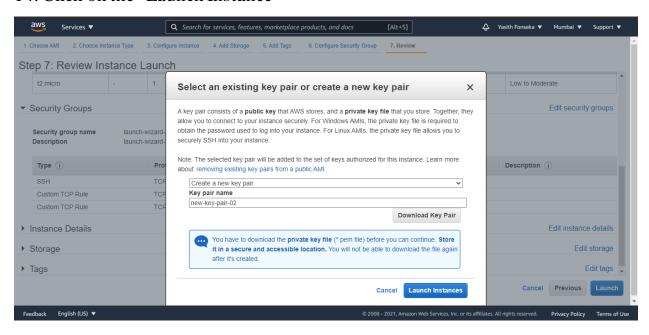
# 12. Keep it as it is and click "Launch"



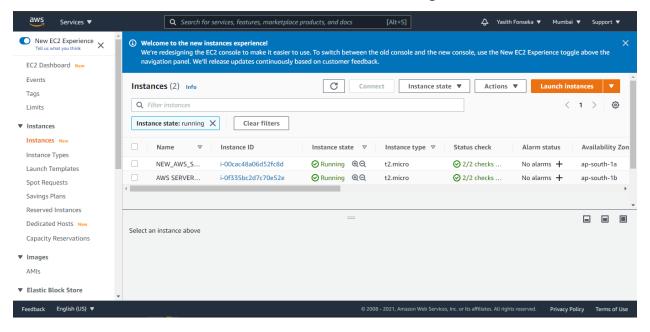
#### 13. Here need to create a new key pair and download.



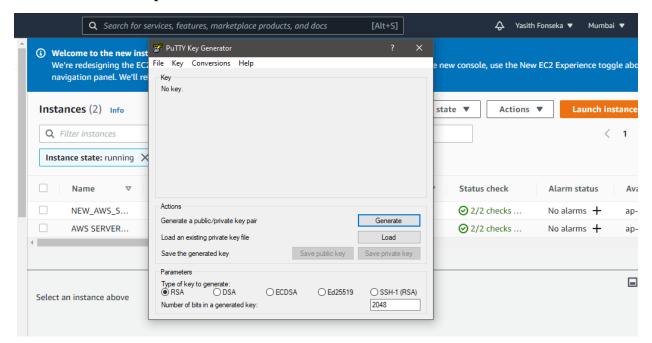
#### 14. Click on the "Launch Instance"



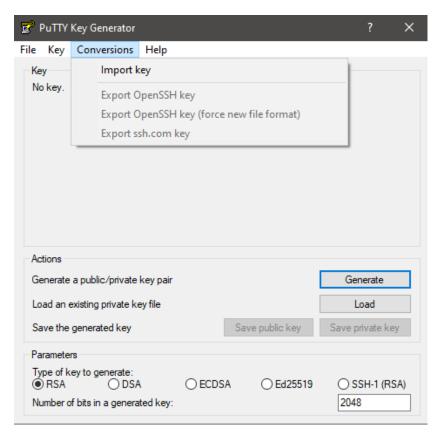
#### 15. After few seconds ec2 instance will come to running state.



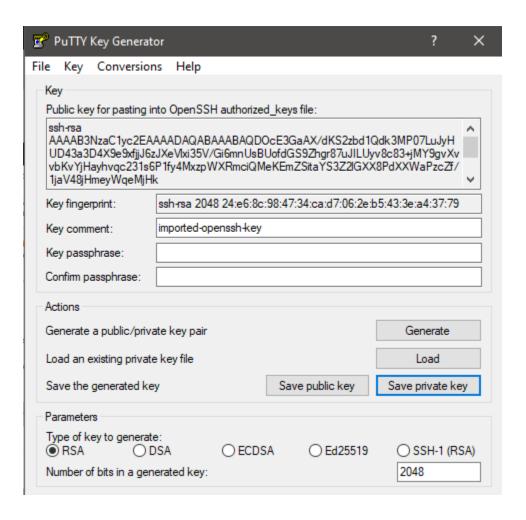
#### 13. Then need to open PUTTYGEN



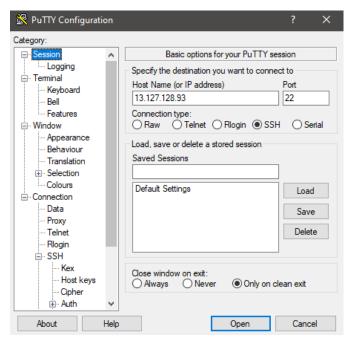
14. Here import the ".pem" key which we generated while setup setup ec2 instance.



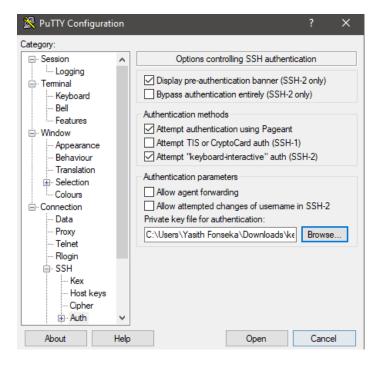
15. After importing your key click on the "Save private key" in order to save private key.



16. Then Search for "PuTTY" and open it. Give your ec2 instance's public ipv4 address as given below.



17. Then click on "SSH" in the left side panel and click on "Auth". Browse you saved private key in give it here. After given your private key click on "OPEN" button.



18. You will get this kind terminal. Here type "ec2-user" and hit enter. Go to the root.

19. In order to install apache do as below.

Reference(<u>https://docs.aws.amazon.com/AmazonRDS/latest/AuroraUserGuide/CHAP\_Tutorials.WebServerDB.CreateWebServer.html</u>)

```
[root@ip-172-31-41-25 ~] # sudo yum install -y httpd
```

```
[root@ip-172-31-41-25 ~] # sudo yum install -y httpd
```

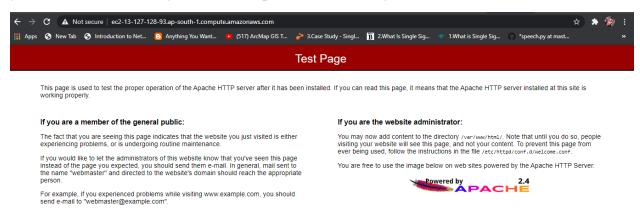
20. You can start apache service using below command.

```
[root@ip-1/2-31-41-25 ~]#
[root@ip-172-31-41-25 ~]#
[root@ip-172-31-41-25 ~]#
[root@ip-172-31-41-25 ~]#
[root@ip-172-31-41-25 ~]#
[root@ip-172-31-41-25 ~]# sudo systemctl start httpd
```

#### 21. For further configuration need to do as follows.

```
Last login: Tue Feb 9 21:06:39 2021 from 112.134.53.86
                   Amazon Linux 2 AMI
https://aws.amazon.com/amazon-linux-2/
[ec2-user@ip-172-31-41-25 ~]$
[ec2-user@ip-172-31-41-25 ~]$
[ec2-user@ip-172-31-41-25 ~]$
[ec2-user@ip-172-31-41-25 ~]$
[ec2-user@ip-172-31-41-25 ~]$ sudo su -
Last login: Tue Feb 9 21:06:44 UTC 2021 on pts/0
[root@ip-172-31-41-25 ~]#
[root@ip-172-31-41-25 ~]#
[root@ip-172-31-41-25 ~]#
[root@ip-172-31-41-25 ~]#
[root@ip-172-31-41-25 ~]#
[root@ip-172-31-41-25 ~] # sudo systemctl start httpd
[root@ip-172-31-41-25 ~] # sudo systemctl enable httpd
[root@ip-172-31-41-25 ~] # sudo groupadd www
[root@ip-172-31-41-25 ~] # exit
logout
[ec2-user@ip-172-31-41-25 ~]$ ec2-user adm wheel systemd-journal www
-bash: ec2-user: command not found
[ec2-user@ip-172-31-41-25 ~]$ sudo su -
Last login: Tue Feb 9 21:15:20 UTC 2021 on pts/1
[root@ip-172-31-41-25 ~] # ec2-user adm wheel systemd-journal www
-bash: ec2-user: command not found
[root@ip-172-31-41-25 ~] # sudo chgrp -R www /var/www
[root@ip-172-31-41-25 ~]#
[root@ip-172-31-41-25 ~] # sudo chmod 2775 /var/www
[root@ip-172-31-41-25 ~] # find /var/www -type d -exec sudo chmod 2775 {} +
[root@ip-172-31-41-25 ~] # find /var/www -type f -exec sudo chmod 0664 {} +
[root@ip-172-31-41-25 ~]#
[root@ip-172-31-41-25 ~]#
[root@ip-172-31-41-25 ~]#
```

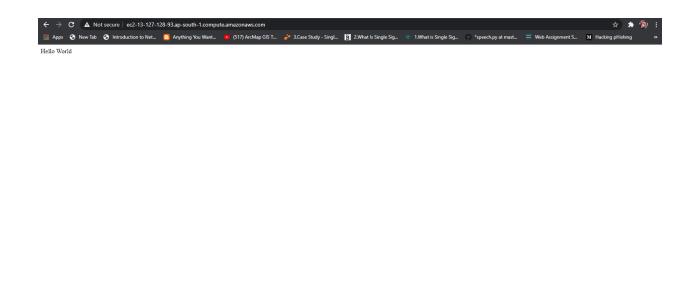
22. After done all of this as mentioned go to the dashboard and copy your "Public IPv4 DNS" and paste it as below. Then you will get page like this. Which mean you have successfully installed Apache server on you server.



23. Go to /var/www/html. Create your own page like below.

```
[root@ip-172-31-41-25 html]# touch index.html
[root@ip-172-31-41-25 html]# vi index.html
[root@ip-172-31-41-25 html]# pwd
/var/www/html
[root@ip-172-31-41-25 html]#
```

24. Then reload your page again and you will get this kind a page.



Here is the URL for public server:

(ec2-13-126-4-143.ap-south-1.compute.amazonaws.com)

# Question 3

#### 3.1

#### 3.2 - 3.4

#### Question 4

#### 4.1 - 4.4

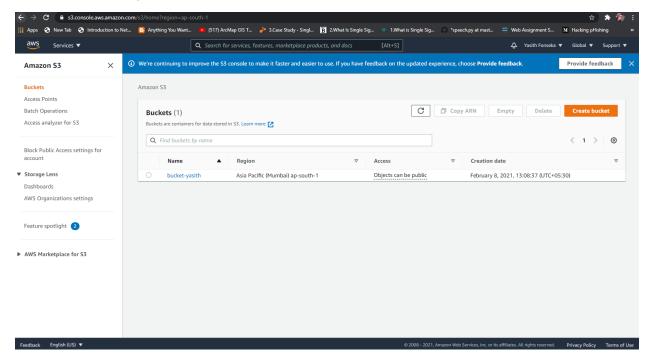
4.1 Setup to take one compress file daily.

```
root@ip-172-31-2-67 ~]# crontab -e
rontab: installing new crontab
root@ip-172-31-2-67 ~]#
```

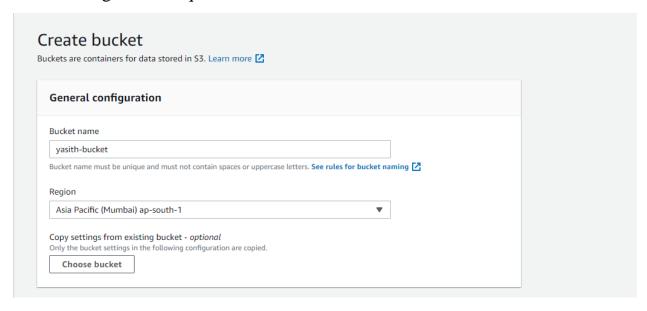
Git link for scripts -: https://github.com/yasithfonseka/assignment.git

# Setup s3 bucket.

- 1. First need to search s3 and load the s3 dashboard
- 2. You will get dashboard like below and click on the "Create Bucket".

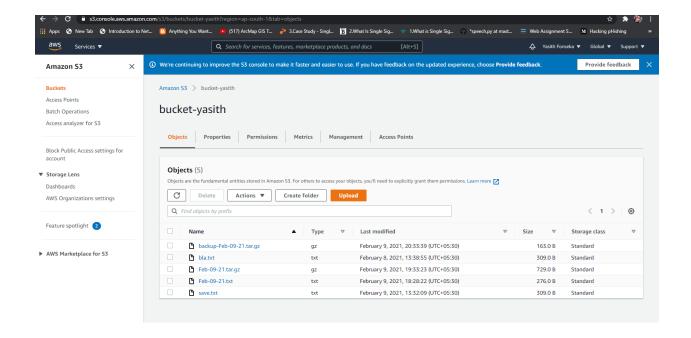


3. Here gives a unique name for bucket and click on "Create Bucket"



4. Then you can upload your files/ backups to the s3 bucket. In my case I used "aws s3 cp \$BACKUPTIME.tar.gz s3://bucket-yasith/" command to upload files. But before that you need to configure S3 bucket in your terminal.

# 5. After that will be able to upload files like below



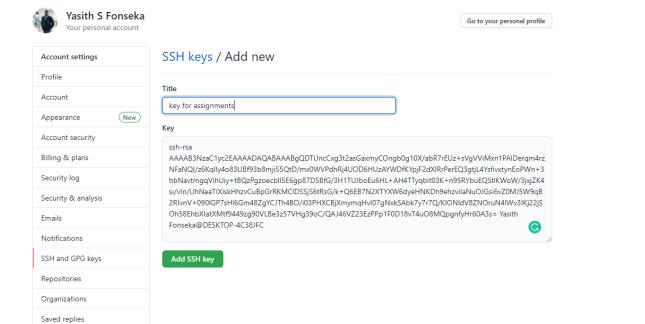
#### Setup git for upload files

1. Here I have attached screenshots that how I proceeded with that task.

```
MINGW64:/c/Users/Yasith Fonseka/Desktop/Assignment
                                                                                                                    -n namespace -s signature_file [-r revocation_file]
 asith Fonseka@DESKTOP-4C38JFC MINGW64 ~/Desktop/Assignment
 /asith Fonseka@DESKTOP-4C38JFC MINGW64 ~/Desktop/Assignment
$ ssh-keygen -o
Generating public/private rsa key pair.
Enter file in which to save the key (/c/Users/Yasith Fonseka/.ssh/id_rsa):
Created directory '/c/Users/Yasith Fonseka/.ssh'.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Passphrases do not match. Try again.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /c/Users/Yasith Fonseka/.ssh/id_rsa
Your public key has been saved in /c/Users/Yasith Fonseka/.ssh/id_rsa.pub
The key fingerprint is:
SHA256:nqG4NsWLHGYicUnZa+3EWKNCp/Cwlxki/TjcnZA9BXA Yasith Fonseka@DESKTOP-4C38JFC
The key's randomart image is:
   --[RSA 3072]----
 . o.+Eo.
= * =.=
 .x @ x +
 o & B *
 + + + S
   . +.+0 0
    --[SHA256]----+
 asith Fonseka@DESKTOP-4C38JFC MINGW64 ~/Desktop/Assignment
 cat /c/Users/Yasith Fonseka/.ssh/id_rsa.pub
```

```
Yasith Fonseka@DESKTOP-4C38JFC MINGW64 ~/Desktop/Assignment
$ cat /c/Users/Yasith Fonseka/.ssh/id_rsa.pub
cat: /c/Users/Yasith: No such file or directory
cat: Fonseka/.ssh/id_rsa.pub: No such file or directory

Yasith Fonseka@DESKTOP-4C38JFC MINGW64 ~/Desktop/Assignment
$ cat /c/Users/Yasith\ Fonseka/.ssh/id_rsa.pub
ssh-rsa AAAAB3NzaClyc2EAAAADAQABAAABgQDTUncCxg3t2asGaxmyCOngbOglOX/abR7rEUz+sVgVViMxn1PAlDerqm4rzNFaNQI/z6KqIly4
o83UBf93b8mji55QtD/mxOWVPdhRj4UOD6HUzAYWDfKYpjF2dXlRrPerEQ3gtjL4YsfivxtynEoPWn+3hbNavtmgqVihUiy+tBQzPgzoecbl15E6
gp87D5Bf6/3H1TUJboEu6HL+AH4TTyqbitO3K+n95RYbuEQ5tlKWoW/3jxjZK4si/vIn/UhNaaTIXiskHhzvCuBpGrRKMClDS5jS6tRsG/k+Q6EB
7N2XTYXW6dyeHNKDh9ehzvilaNuOJGsi6vZOMJ5W9qB2RIvnV+0901GP7sH16Gm48ZgYCJTh4BO/i03PHXCBjXmymqHv107gNxkSAbk7y7r7Q/K1
ONldv8ZNOruN4IWv3IKj22jSOh58EhbXIatXMtf9449zg90VLBe3z57VHg39oC/QAJ46VZ23EzPPp1F0D18vT4u08MQpgnfyHr60A3s= Yasith
Fonseka@DESKTOP-4C38JFC MINGW64 ~/Desktop/Assignment
$
```



```
a@DESKTOP-4C38JFC MINGW64 ~/Desktop/Assignment
$ git init
Initialized empty Git repository in C:/Users/Yasith Fonseka/Desktop/Assignment/.git/
 asith Fonseka@DESKTOP-4C38JFC MINGW64 ~/Desktop/Assignment (master)
$ echo "# assignmnet" >> README.md
 asith Fonseka@DESKTOP-4C38JFC MINGW64 ~/Desktop/Assignment (master)
$ git status
On branch master
No commits yet
Untracked files:
  (use "git add <file>..." to include in what will be committed)
nothing added to commit but untracked files present (use "git add" to track)
 asith Fonseka@DESKTOP-4C38JFC MINGW64 ~/Desktop/Assignment (master)
$ git add README.md
warning: LF will be replaced by CRLF in README.md.
The file will have its original line endings in your working directory
 asith Fonseka@DESKTOP-4C38JFC MINGW64 ~/Desktop/Assignment (master)
$ git status
On branch master
No commits yet
Changes to be committed:

(use "git rm --cached <file>..." to unstage)

new file: README.md
Untracked files:
  (use "git add <file>..." to include in what will be committed)
 asith Fonseka@DESKTOP-4C38JFC MINGW64 ~/Desktop/Assignment (master)
$ git add .
```

```
/asith Fonseka@DESKTOP-4C38JFC MINGW64 ~/Desktop/Assignment (master)
$ git status
On branch master
No commits yet
Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
          new file: backup_script.sh
new file: check.sh
          new file: response.sh
Yasith Fonseka@DESKTOP-4C38JFC MINGW64 ~/Desktop/Assignment (master) $ git commit -m "first commit"
*** Please tell me who you are.
Run
  git config --global user.email "you@example.com"
git config --global user.name "Your Name"
to set your account's default identity.
Omit --global to set the identity only in this repository.
fatal: unable to auto-detect email address (got 'Yasith Fonseka@DESKTOP-4C38JFC.(none)')
Yasith Fonseka@DESKTOP-4C38JFC MINGW64 ~/Desktop/Assignment (master)
$ git config --global user.email "yasithfonseka123@gmail.com"
Yasith Fonseka@DESKTOP-4C38JFC MINGW64 ~/Desktop/Assignment (master)
5 git config --global user.name "Yasith Fonseka"
Yasith Fonseka@DESKTOP-4C38JFC MINGW64 ~/Desktop/Assignment (master)
$ git commit -m "first commit"
[master (root-commit) d443e3b] first commit
4 files changed, 39 insertions(+)
create mode 100644 README.md
 create mode 100644 backup_script.sh
 create mode 100644 check.sh
create mode 100644 response.sh
```

```
Yasith Fonseka@DESKTOP-4C38JFC MINGW64 ~/Desktop/Assignment (master)
$ git remote add origin https://github.com/yasithfonseka/assignment.git
Yasith Fonseka@DESKTOP-4C38JFC MINGW64 ~/Desktop/Assignment (master)
origin https://github.com/yasithfonseka/assignment.git (fetch)
origin https://github.com/yasithfonseka/assignment.git (push)
Yasith Fonseka@DESKTOP-4C38JFC MINGW64 ~/Desktop/Assignment (master)
$ git push origin master
Logon failed, use ctrl+c to cancel basic credential prompt.
/asith Fonseka@DESKTOP-4C38JFC MINGW64 ~/Desktop/Assignment (master)
/asith Fonseka@DESKTOP-4C38JFC MINGW64 ~/Desktop/Assignment (master)
$ git push origin master
Logon failed, use ctrl+c to cancel basic credential prompt.
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Delta compression using up to 4 threads
Compressing objects: 100% (5/5), done.
Writing objects: 100% (6/6), 1.03 KiB | 175.00 KiB/s, done.
Total 6 (delta 0), reused 0 (delta 0)
remote:
remote: Create a pull request for 'master' on GitHub by visiting:
             https://github.com/yasithfonseka/assignment/pull/new/master
remote:
To https://github.com/yasithfonseka/assignment.git
  [new branch]
                     master -> master
```

https://github.com/yasithfonseka/assignment/compare/master?expand=1